

$$13. (4x - 7) + (9x + 8)$$

$$14. (13x + 16) + (-17x + 19)$$

Subtract.

$$15. \begin{array}{r} 17x^2 + 5x - 4 \\ - (9x^2 + 8x + 10) \\ \hline \end{array}$$

$$16. \begin{array}{r} 3x^2 - 7x + 12 \\ + (15x^2 - 8x + 22) \\ \hline \end{array}$$

$$17. (-11x + 14) - (12x + 13)$$

$$18. (46x^2 + 13x - 24) - (32x^2 + 16)$$

Add or subtract as indicated.

$$19. (3a - 2b) + (6b - 2a)$$

$$20. (4x - 5y) - (4x + 7y)$$

$$21. (2c^2 + 9) - (3c^2 - 7)$$

$$22. (-8d - 7) + (-d - 6)$$

$$23. (3x^2 - 6y - 1) + (5x^2 + 1)$$

$$24. (-a^2 - 3) - (3a - a^2 - 5)$$

$$25. (6x^2y + 5xy^2 + 7xy - 7) + (-19x^2y + xy^2 - 11xy + 14)$$

$$26. (8x^2y + 12xy^2 - 15xy + 21) + (27x^2y + 13xy^2 - 21xy - 17)$$

$$27. (7x^3 + 9x^2 - 8x + 11) - (5x^3 + 13x - 16)$$

$$28. (-3x^3 + 7x^2 - 8) - (-5x^3 + 9x^2 - 8x + 19)$$

$$29. (-12x^3 + 5x - 23) - (4x^4 + 31 - 9x^3)$$

$$30. (30x^3 - 49x^2 + 7x) + (50x^3 - 75 - 60x^2)$$

$$31. (0.348x^2 - 3.316) + (-7.829x^2 + 3.957x - 6.387)$$

$$32. (3.521x^2 - 6.309x) + (-6.217x^2 - 4.208x - 8.492)$$

$$33. (3a^2 + ab - 7) + (5a^2 + ab + 8) - (-2a^2 + 3ab - 9)$$

$$34. (a^2 - 2ab + b^2) - (3a^2 - 2ab + b^2) + (4a^2 + 7b^2)$$

$$35. \text{Subtract } 5x^3 - 3x^2 + 5x - 1 \text{ from } 4x^2 - 7.$$

$$36. \text{From } (3cd - ef), \text{ subtract } (-4ef + 1).$$

$$37. \text{By how much does } (3y^2 - 5y - 12) \text{ exceed } (2y^2 - 3y + 8)?$$

$$38. \text{Subtract } (10x^3 + 5 - 4x^2 - x^4) \text{ from } (3x - 4x^2 - 5x^3 + 2).$$

First use the distributive property to simplify each product. Then, add or subtract as indicated.

$$39. 2(3a - 2b) - 4(c - 2d) + 3(6c - 2a)$$

$$40. -3x(4x + 5y + 6y^2) + 9y(5x + 4xy - 7x^2)$$

$$41. \text{State the closure property for addition of polynomials. Illustrate this property using } 2x^2 + 5x + 2 \text{ and } x^2 - x + 8.$$

$$42. \text{Does the set of polynomials have an additive identity element? If so, what is it?}$$